

Dvorak Developments

Dvorak Developments #50 (Volume 14, #4) • Winter 1987

Our 50th Issue

by Randy Cassingham, Editor

This issue marks the 50th issue of this newsletter. Started under the nameplate of *Quick Strokes*, the first issue was published March 15, 1973 by Phil Davis. Mr. Davis, a journeyman printer, began the newsletter as a bulletin for Dvorak typewriter dealers. At that time, the only Dvorak typewriters were those specially modified, by hand, for the new keyboard, or manufactured under special order. Mr. Davis' company, **Speedy Keyboard**

Mr. Dobbs, "putting my money where my mouth is", donated \$300 "to have your fine publication professionally typeset and printed."

Enterprises, Inc., sold those specially made typewriters.

That first issue was a single-page, typewritten sheet and mimeographed. It continued to be 'set in type' by a typewriter until Fall of 1979, when a reader, Ralph Dobbs, decided that the typewritten pages gave the "beautifully written" newsletter "an amateurish 'look' that it does not deserve." Mr. Dobbs, "putting my money where my mouth is", donated \$300 "to have your fine publication professionally typeset and printed." *Quick Strokes* continued to be published — typeset — by Mr. Davis until 1985.

Freelance Communications purchased the newsletter from Mr. Davis and changed the name to *Dvorak Developments*. After one issue under that name (Fall 1985), the first 'e' was reinserted in *Developments* "to facilitate the indexing procedures in libraries and companies, and because most people were referring to us as

Continued on Page 7

Missing Issues

Due to a variety of factors, the Summer and Fall 1987 issues of *Dvorak Developments* were not published. To make up for the missing issues, the terms of all paid subscriptions have been increased by two issues (check your mailing label for your expiration date). We apologize for the interruption in our schedule. Thanks for your patience.

From the Editor's Keyboard

by Randy Cassingham

Free Books

We had a flood in the storage room where the stock of the book *The Dvorak Keyboard* is kept, and several cases of books sustained water damage. The damage isn't severe, but the books are slightly warped and we don't feel that they should be sold.

Naturally, our business manager says to toss them out and take the loss. If we sold them at a discount, it would cut into regular sales. I can't bear to put them in the trash, but I don't want to sell them. What to do? I'm going to give them away — our first goal is to get the word out about the Dvorak keyboard; profit comes second.

While the stock of damaged books lasts, we will send boxes of six to *Dvorak Developments* readers for only the cost of packing and shipping them — six dollars a box. All we ask in return is that *you* give them away too: to your local library (for their shelf or for sale to raise money), to your local school (it's appropriate for high school or above), vocational college, training-for-the-handicapped agency, or any other non-profit group that might benefit.

Obviously, the books are not returnable. All are marked as "complimentary copy — not for resale". Send your check for \$6 (no tax in California since the money is for shipping/handling) to Freelance Communications. Limit one box per person.

PCKey Program Released

In our last issue, we had time to slip in an ad for our new product, PCKey, but didn't have time to say anything about it.

PCKey is a terrific little utility program for the IBM PC/XT/AT family and their compatibles (including the popular fully compatible laptop machines such as the Toshiba's). Naturally, the main point of the program is to provide a keyboard remapping function for an instant Dvorak keyboard, but it also provides several other useful functions.

We've seen a lot of programs that will give you a Dvorak keyboard on an IBM PC, and we liked PCKey

Continued on Page 4

Letters

More Nonsense

I have been using Keyboard Master to practice typing. Unfortunately, I have to fool the program by pretending my Maxi-Switch keyboard is a Qwerty in order to have the program run correctly [Editor's note: see the review in the Fall 1986 issue of DvDv regarding the

The reason for this letter is to agree with your comments about typing nonsense. I notice that I quit after becoming bored with typing nonsense — not real words.

problems of unavoidable Dvorak conversions in typing tutorials]. The only price I have to pay for doing this is to ignore the on-screen finger prompts.

The reason for this letter is to agree with your comments about typing nonsense. There is too much nonsense with Keyboard Master. I notice that I quit after becoming bored with typing nonsense — not real words.

Also, I suggest you have a contest to create a name for people who are able to type on both Dvorak and Qwerty keyboards. Some examples are bi-keyer, biker, or doublekeyer. Surely your readers could come up with some better ones.

Larry Stempnik
Warrin, MI

Someone once suggested "bi-fingeral", and I retorted with "doubledigital". Most people probably haven't thought about a name for the ability to type on both keyboard layouts, since many wrongly assume that you have to give up Qwerty forever if you switch to Dvorak.

"Nonsense words" (such as typing manual favorites 'sadfg' and 'lhkj') are remnants of Qwerty teaching. It takes quite a few lessons on that keyboard before you know enough letters to make many meaningful words. Such nonsense words just aren't necessary on the Dvorak since you can make several thousand real English words on the home row alone.

Old Time Dvorak

Thank you very much for the information you sent on the Dvorak. I have delayed writing as we are planning a move to the West Coast and it has been hectic, but I can't hold off any longer so I have enclosed a

check for your book and newsletter.

I was a part of the test group at Mason Junior High School in Tacoma, Washington. I am not precisely sure of the year, but I was in the eighth or ninth grade, which would make it either 1936 or 1937. As I recall, most of the class reached typing speeds of 75 WPM or more in one semester.

It is encouraging to note that it is now possible to convert computer keyboards to this great system. Perhaps now, Dvorak will finally come into its own.

John Fullinwider
Barrington, NH

I definitely think that computers have significantly helped the Dvorak movement — they're so easily programmable (indeed, that's their nature). But computers have helped Dvorak even more because many business managers now have PCs on their desks. Most managers never really learned how to type well, and they don't have the time or inclination to learn the nonsensical Qwerty layout (see, for example, "Aetna Managers Learn Dvorak", in the Summer 1986 DvDv).

Letters should be addressed to Randy Cassingham, Editor, Dvorak Developments, PO Box 1895, Upland CA 91785. While not all letters can be personally answered, the most interesting will be printed here after being edited for length and clarity.

Dvorak Developments ISSN 0743-4200

Editor Randy Cassingham
Managing Editor Michele Wolf
Contributing Editors Phil Davis
..... Bob Nelson

© 1987 by Freelance Communications. All Rights Reserved. No part may be copied in any form without prior, written permission.

Published Quarterly (Winter, Spring, Summer and Fall) by Freelance Communications, PO Box 1895, Upland CA 91785.

Subscriptions: \$12.00 per year in North America (for foreign addresses, add \$4.00 per year for special handling and air mail delivery. Payment must be made in U.S. funds). Please: make checks payable to Freelance Communications.

The book The Dvorak Keyboard...

"... is one of the most fascinating books I've had the pleasure to read lately. Cassingham really did his research on this book."

— Mark Nolan, *Information Marketing Newsletter*

"If you are after good, useful, hard-to-find (Dvorak) keyboard information, this book will be invaluable to you."

— David McLanahan, *ComputerSmyth*

The Dvorak Keyboard will answer your questions about the Dvorak keyboard, or we'll give you your money back.* Written by *Dvorak Developments* editor Randy Cassingham, the book includes:

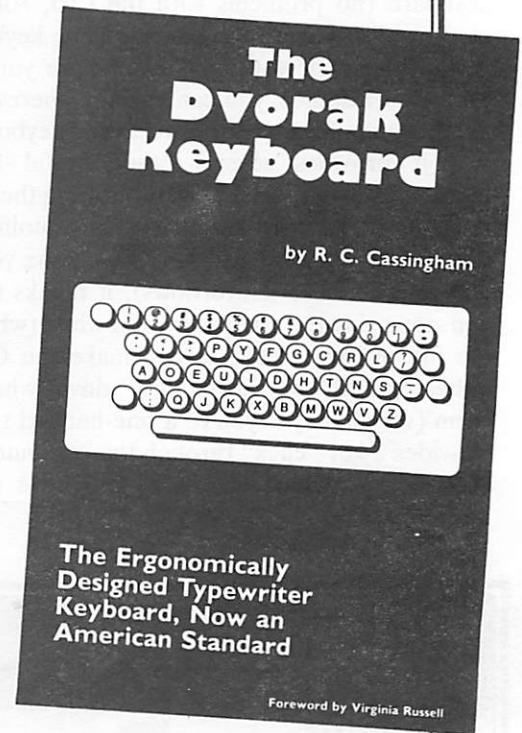
- A clear explanation of the logical design and evolution of the Dvorak
- No-nonsense information on how to convert
- Proof of Dvorak's superiority
- An explanation of the many factors that allowed 'Qwerty' to become entrenched as the 'standard' keyboard, and why it took until now for the Dvorak to become popular
- Hard-to-find information about Dr. Dvorak's special keyboards for one-handed typists — designed with the same principles as the regular Dvorak

The Dvorak Keyboard is the **only** book of its kind. Everything you want to know about the Dvorak is here in one place. Only \$12.95 per copy, plus \$1 shipping (for fast airmail delivery, add an extra dollar). California residents please add 78¢ sales tax per copy.

* **Our Guarantee:** If you purchased *The Dvorak Keyboard* from us and for any reason you aren't satisfied, return it in good condition within 10 days and we'll send you your money back.

Quantity discounts available for classroom or other uses —
Contact us for information

Freelance Communications
Post Office Box 1895
Upland CA 91785



Editor's Column

Continued from Page 1

the best — so we purchased exclusive rights to market it. Here are our reasons: it's small (it takes less than 2200 bytes of RAM), it gives you a perfect Dvorak keyboard (no problems with the Ctrl, Alt, Shift keys, etc.), it allows you to customize your keyboard in any way you wish (if you don't like where your backspace key is, for instance, you can move it wherever you want, or you can program your own special keyboard layouts), and it provides several other useful functions: it increases the keyboard buffer (allowing the computer to build up 128 keystrokes if it is busy doing something else, like reading the disk — DOS allows you to type 16 characters before it overflows), it blanks the screen if you stop using the computer for a while (which prolongs the life of the screen), it can make the Ctrl, Alt and either or both shift keys "lock" down when you press them (very handy if you're a one-handed typist), and it provides a key "click" through the computer speaker, if you want it, which is nice if you have a very quiet keyboard.

We have two computers; one uses PCKey for Dvorak. The other has a Maxi-Switch Dvorak keyboard, but it still uses PCKey on it — it moves the backspace key down to where it can be reached easily, it blanks the screen, and adds buffering and keyclicks.

The PCKey program is supplied to us by the company that sells the SmartKey keyboard macro program, a program we have recommended many times in these pages. PCKey is the part of the SmartKey package that allows you to remap your keyboard to Dvorak. SmartKey can't do that easily by itself. In our overview of the SmartKey package (Summer 1986), reviewer Bob Nelson said PCKey "works so well without SmartKey it might be worth the cost of the package by itself."

So, if PCKey is the same program as what comes with SmartKey, why do we sell it as a Dvorak conversion program? Simple. It's the best program for Dvorak conversion we've ever seen, and we don't think that someone that just wants to use the Dvorak should have to buy the \$70 SmartKey program to do it. So, if you want all of the extensive capabilities of SmartKey, buy that — PCKey comes in the package (you can even get SmartKey from us; write for a spec sheet and order form). If you just want the best Dvorak program you can buy, get PCKey.

Problems? Only a couple. If your computer is not a 'true compatible', PCKey may not work. Examples: the DEC Rainbow and the early laptop computers made by Morrow (such as the Osborne 3 and the original Zenith) don't like PCKey (among other programs). Also, a very few misbehaving programs "take over" the computer's keyboard and stop all memory-resident programs from working (including PCKey). The most notable is the Leading Edge Word Processor. But, luckily, we can supply a 'patch' for most of these programs to make them compatible with PCKey (including a new patch for the most popular versions of the LEWP — write back if we discourage you from buying PCKey because you wanted to use it with that program). Happily, these misbehaving programs are very rare, and becoming more rare as users complain to those program's publishers.

The PCKey package comes set up four times to give you four layouts: ANSI-standard Dvorak, Qwerty, and Dvorak one-handed layouts for the left and right hands. You can easily switch among them (or your own custom layouts) at any time — just run the program again, and you can switch from Dvorak to Qwerty and back again. PCKey is \$20 including postage, \$25 if you want it supplied on a 3.5" disk (for your laptop).

Customize your keyboard to Dvorak

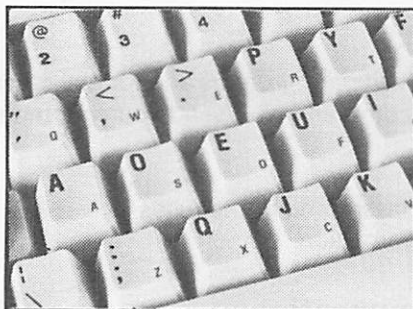
Convert your keyboard to reflect the Dvorak layout. These rigid plastic adhesive labels are imprinted with the Dvorak key legend in bold black in the upper left hand corner and the Qwerty legend in smaller black print in the lower right-hand corner of the keytop.

- Won't slip or slide
- Last indefinitely

Available for IBM, DEC, and Apple size keyboards.

Only \$26.95

Call or write for our
Free Catalog!



Hooleon
CORPORATION

P.O. Box 201
Dept. DVDE
Cornville, AZ 86325

Visa & MasterCard • (602) 634-7515

The Leader in Keytop Innovations

Product Overviews

Product overviews are detailed descriptions of Dvorak-related products. The regular "for sale" version of the product is tested, then described in full so that readers can make intelligent choices on what products fit their needs. Opinions expressed in the overview are those of the author.

SureStroke/Dvorak: KeyMaster Redux

Reviewed by Bob Nelson

Description: Package of Dvorak translator program, typing tutor, keyboard overlays, and "relaxation tape" for IBM PC/XT/ATs and compatibles, \$95.00.

Supplier: Seasoned Systems, Inc., PO Box 3720, Chapel Hill NC 27515, (800) 334-5531, in North Carolina (919) 732-9391.

Machines used for test: Leading Edge Model 'D' and an IBM AT 'clone'.

SureStroke/Dvorak, by Seasoned Systems, Inc., is a no-frills typing tutorial program and keyboard conversion package which takes a bit of effort to set up, but proves to be a capable instructor once the complex installation process is complete. During the set up, I found that a careful reading of the manual was necessary to understand what was going on. Fortunately, the manual supplied by Seasoned Systems is thorough and fairly straightforward in explaining the program's operation.

SureStroke comes with a cassette tape meant to relax the listener prior to beginning a typing lesson — a calm male voice speaks soothingly over a restful background of soft, gong-like sounds. The voice carries the listener through an inner journey aimed at achieving whole-body relaxation to promote the idea of learning the Dvorak keyboard. The voice includes subtle allusions to the "new" keyboard the listener will be learning. The voice is both pleasant and effective — I found myself becoming more relaxed as I listened, the tensions draining away. The speaker calmly extols the virtues of the Dvorak layout — its greater efficiency, ease of use and ease of learning — and reminds the listener that the skills used to type on a Qwerty keyboard are also utilized when typing on the Dvorak. The relaxation techniques used in the tape are very effective; the positive reinforcement of the desire to learn the Dvorak

MacQWERTY™ \$45⁰⁰

For ALL
Macintosh™ Computers

Dvorak & Custom Keyboard
Reconfiguration

With a click change keyboard to Dvorak or Custom layout.
Keyboard arranged at boot-up. Keytop overlays included.



PARAGON
concepts, inc.

4954 Sun Valley Rd. Del Mar CA 92014

Call for information: (619) 481-1477

Order Phone: 1-800 621-5640 PARAGON

Macintosh is a trademark licensed to
Apple Computer Company

keyboard is pleasantly reassuring.

Seasoned Systems includes a translator program that converts the standard Qwerty layout to Dvorak. I found this memory-resident utility to be most valuable after making minor modifications to the default Dvorak layout the utility generates. The problem with the translator as it comes is that it puts the backslash where the hyphen was on the Qwerty keyboard, the tilde (~) in the backslash position and the Qwerty hyphen (Dvorak []) where the tilde was located. These key locations may be good if you have a stock IBM keyboard, but if you are using an AT style or PC compatible keyboard that has a different layout, you probably won't like it. The manual comes with instructions for using the MS-DOS 'Debug' program to exchange the positions of up to five keys — not a task for the computer novice. The procedure is short and uncomplicated if you know what you're doing, and you will need a list of the keyboard scan codes to successfully make the changes. After this is done, the translator program works perfectly with all computers I tried it on, including those with the new 101-key keyboards.

When first entering the SureStroke Coach (tutor), a display explains what you will see when the typing tutorial begins. After I got past the opening screens and began the lesson, I experienced a powerful feeling of *deja vu*. The screen layout was virtually identical to that of the "KeyMaster" program I had reviewed some time earlier. The obvious assumption is that SureStroke is the same program marketed as KeyMaster by a different company (PowerUp!, in San Mateo, Calif.)

During the lesson, a diagram of the Dvorak keyboard is displayed at the top of the screen and two blocky-looking hands appear at the bottom. These "hands" prompt the typist on which finger to use, depending on the character to be typed, when the typist lags a bit or strikes the wrong key.

Like KeyMaster, SureStroke alternates between accuracy training and speed training. Errors made during

Continued on Page 6

SureStroke/Dvorak

Continued from Page 5

the speed portion of the lesson do not count against you (they do not decrease your word-per-minute count or affect the accuracy percentages). Similarly, the slow-down which naturally occurs when the typist strives to hit the correct keys during the accuracy sessions does not register in the speed tallies.

During the lesson, the letters you type appear just below the line of text you are typing from. Mistakes

After I got past the opening screens and began the lesson, I experienced a powerful feeling of deja vu

made during either speed or accuracy testing sessions stand out in highlighted video. When a typo is made while speed is being stressed, you cannot go back to correct it — you have to keep going. If accuracy is being stressed, however, the cursor will pause when a typo occurs and the errant character is highlighted. You cannot go on to the next character until the correct key is pressed. This can be a drawback when you are typing along and make an error: two or three keys can be struck as momentum carries you forward before you catch the mistake and find the correct key that lets you continue. Each of these keystrokes count against your accuracy percentages. The program keeps track of the mistakes and gives a speed and error count when you have finished the practice line.

The speed tests consist mostly of one-line groupings of words and sentence fragments, which do not really attempt to form coherent English statements. At least the practice lines are composed of words and not random characters. However, the same cannot be said of the accuracy tests, which are also used to introduce new characters. The line of text printed on the screen in this case is made up of random four-letter groupings which usually emphasize four different characters from the keyboard. This type of exercise gets tedious fast, but it does force one to concentrate on hitting the right key. An advantage of this approach is that the program forces the learner to practice *all* the keystrokes used in typing — not just the more common ones. (You become familiar with the location of the - ; ' / x z and q as well as the more frequently used letters and punctuation marks.) However, this method has a major *disadvantage*: it doesn't teach the normal letter sequences that make up written text. Nonsense words are not only boring, and therefore decrease the learner's motivation,

but such sequences do not exist in normal text. Why condition a response that will never be used in the real world of typing while ignoring letter combinations that will? The worst part, though, is that *such nonsense words aren't necessary when using a Dvorak keyboard*, because thousands of real words can easily be made with just the home row keys.

After you have used SureStroke once and exited properly, the program will recognize your name when you begin another lesson. It then loads your personal records and displays a summary of your progress to date. This summary includes your best speed, average speed, best and average accuracy, the number of sessions so far, the total learning and "stroking" time, and a listing of those letters at which you are fastest and slowest. A subsequent screen asks for your speed goal for the current session. SureStroke then picks up where you left off the last time the program was used, allowing you to hone your skills in new areas while offering reinforcement of those learned in prior lessons. Since SureStroke offers no apparent way to choose which keys you wish to practice, this avoids the redundancy of having to start from the beginning with each lesson.

Overall, I was disappointed with the SureStroke tutorial program. Seasoned Systems has not even bothered to "compile" the Basic language this program was written in — it will not run as a stand-alone program under DOS, but requires the BASICA or GWBASIC interpreter to run. This results in somewhat sluggish execution and poor performance. This drawback, coupled with the overuse of nonsense words and the lack of more complex text structures (such as multiple lines and paragraphs), make it a rather poor tutor for acquainting a person with the kind of text one finds in the "real" world. SureStroke does little to make a boring task easier or more enjoyable, and its limitations can get in the way of acquiring true typing skills. However, the program is not without its charms, and as a no-frills typing tutorial, it does do an adequate job of familiarizing the novice stroker with the Dvorak keyboard. In addition, the translator program, once properly configured, does an excellent job of converting the standard Qwerty keyboard to the Dvorak layout. SureStroke is not copy protected.

Bob Nelson is a freelance writer and computer consultant, and is currently pursuing a Master's Degree in the teaching of writing. A slave to his computer, Bob looks for any aid to make his writing easier — he is a devoted Dvorak convert. He lives in Arcata, California.

Product Alerts

Faultline Micro has a new address and phone: PO Box 1511, Wilmington CA 90748, (213) 830-7640. Faultline sells a good conversion system for the Apple IIe computer.

KT Services, PO Box 14528, Spokane WA 99214, (509) 927-5395, is a subsidiary of Key Tronic Corp., the keyboard manufacturer who, *until recently*, sold their popular models KB-5150 and KB-5151 keyboards with an optional Dvorak layout. Key Tronics has discontinued stocking the Dvorak versions of these keyboards, but KT Services is picking up the slack by selling a kit to convert them. The kit contains an EPROM (memory chip), new keycaps to show the Dvorak layout (and a keycap puller to get the old ones off), instructions and a layout chart, for \$35. This allows the upgrade of existing Key Tronic keyboards to Dvorak.

Software Research Technologies, has a new address and phone number: 22901 Mill Creek Drive Suite B, Laguna Hills, CA 92653, (714) 472-0474. SRT produces the SmartKey keyboard macro program, which includes a copy of the PCKey keyboard conversion program (see the editor's column for details). The SmartKey package has just been updated to version 5.2, and sports a number of powerful new features. Of all the keyboard macro programs we've tried (and we've tried most of them), we like SmartKey the best.

Just in at press time: Simon & Schuster, the publishers of the 'Typing Tutor' software, has just released a new version of the software (Typing Tutor IV) with Dvorak lessons. More information in the next issue.

Our 50th Issue

Continued from Page 1

Dvorak Developments anyway," the Winter 1985 issue reported.

Ten Years Ago

The Summer 1977 issue of *Quick Strokes* reported on the efforts of the American National Standards Institute to make the Dvorak layout an 'alternate' American standard. The standard was formally approved on November 19, 1982.

The Fall 1977 issue reported on Mary V. Kerzner of Hollis, New York. A public stenographer, who was paid according to her production, Ms. Kerzner "virtually doubled her income" by switching to Dvorak — her

Back Issues

- **Fall 1986.** Randy Cassingham's column on the Silver Reed EZ 50 Dvorak-capable typewriter and editorial on how some companies don't promote their product's Dvorak capabilities. Product overviews on Keyboard Master and Typing Made Easy (typing tutorial programs). Listings of 2 new Dvorak products. 2 bibliographic entries. Very limited supply.
- **Winter 1986.** "Dvorak Helped Me Overcome Dyslexia". Randy Cassingham's column on the Dvorak keyboard for handicapped typists, interest in the Dvorak by Professional Secretaries International, the increase in the availability of Dvorak keyboards on typing equipment, and 'Dvorak PC'. Product overview on DV Switcher (conversion hardware for the Commodore 64). An item about the Dvorak appearing in popular books. One new product listing, 3 bibliographic notes.
- **Spring 1986.** EZ-50 typewriter wins *DvDv* 'Product of the Year' award. Randy Cassingham's column on the Maxi-Switch "Memory Pro" keyboards, DIF, Dvorak PC, and educator interest in the Dvorak. Product overview on SmartKey II Plus and XtraKey (conversion programs for CP/M computers). Listing of one new Dvorak product.

Back issues are \$2 each, postage included. All issues listed are eight pages. Order from Freelance Communications, PO Box 1895, Upland CA 91785. Send a SASE for information about earlier issues.

typing speed went from 77 wpm on Qwerty to 130 wpm on Dvorak. *Quick Strokes* often made mention of such improvements by individuals and companies who converted.

All of the 41 back issues of *Quick Strokes* are still available for purchase. Contact Phil Davis at 7612 Amherst Street #7, Sacramento CA 95832-1040 for details.

Dvorak Developments will continue publication into the indefinite future. It remains the only publication dedicated to promoting the ergonomic alternative to Qwerty. Look for articles in upcoming issues about how the Dvorak is making headway to becoming the *primary* standard, rather than the 'alternate'.

Classified

Complete Apple IIe Dvorak Conversion. \$21.95, \$1.30 CA tax.
Faultline Micro POB 1511 Wilmington, CA 90748 (213) 830-7640

SCM 2500 Dvorak Typewriter. Hardly Used — \$100
Forrest Furman • (714) 626-2394

Coronamatic 2200 Dvorak Keyboard + case \$350.
McMakin, 44 Woodcrest La, Doylestown, PA 18901

Dvorak Headquarters IBM COMPATIBLE

Plug-compatible Dvorak Keyboards for IBM PC/XT/AT/Clones

- 84 Key Honeywell Autoswitch — 2 year warranty . . . \$109.00
 - 84 Key Maxiswitch — PG/AT and ESC switch . . . \$109.00
 - 101 Key Honeywell Autoswitch — 2 year warranty . . \$139.00
- Conversion ROM Kit for Honeywell \$25.00

COMMODORE COMPATIBLE

- Dv Switcher™ ROM Conversion Kit for C64 \$39.95
 - DV Typer™ Typing Tutor for C64 and C128 \$36.95
- Both Packages include Dvorak/Qwerty Key Overlays. DV Typer includes Typing Manual by Dr. Dvorak, Basic on C64, C128.
(Prices include shipping. Calif. residents add 6% tax)
PRELCO 14202 Galy St. Tustin, CA 92680 714-544-3041

Bibliographic Notes

Natural History, January 1987. This very interesting, whimsical (and lengthy) essay, subtitled “We have an example of the principle of imperfection at our fingertips” likens the Qwerty keyboard to the panda’s “false thumb” — a “clumsy, suboptimal structure, but it works.”

Hands-On Electronics, February 1987. A brief introduction to the Dvorak and how to convert computers.

Computel's Gazette, March 1987. A brief article describing a program readers can type in to their Commodore-64 computers to convert them to Dvorak for some applications — a good way to experiment with the Dvorak on these machines.

Online Today, July 1987. A review of Tri-Mike Network East's Dvorak keyboard system for the TRS-80 Model 100 notebook computer was featured.

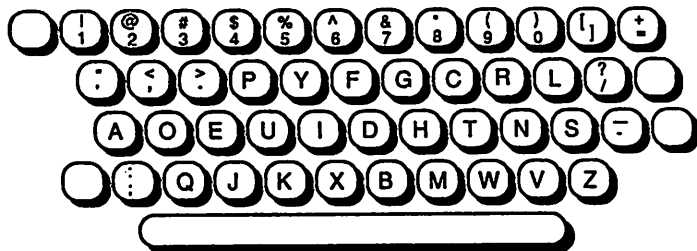
The Secretary, October 1987. A brief article on how the Dvorak helps the handicapped communicate. The article was inspired by Charlie Metcalfe's article on Dvorak and Dyslexia in last Winter's issue of *DvDv*.

Changing Times, October 1987. A brief note about the Dvorak was included in the “On Your Computer” column.

Dvorak Developments

Post Office Box 1895

Upland CA 91785



The Dvorak (pronounced “duh-VOR-ack”) Keyboard.

© 1987 by Dvorak Developments.

Conforms to ANSI standards.